unusual condition that it is unlikely that many other passengers could have been infected in this manner, without being reported. Put into context this represents an extremely small proportion of the travellers who pass through malarious areas each year. It has been suggested that all passengers transiting a malarious area should have full chemoprophylaxis<sup>5</sup>. Such advice is considered inappropriate<sup>6</sup> since the risk of acquiring malaria is very low, chemoprophylaxis is neither 100% effective nor completely free from side effects, and compliance would certainly be poor.

A more practical approach is for transit passengers to be specifically warned of the small risk of malaria acquisition, by aircraft crew. Passengers are advised that any illness must be reported, and to raise the possibility of malaria with their doctor. These simple precautionary measures should be regarded as adequate safeguards for a rare yet potentially lethal condition.

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# Bilateral symmetrical branch retinal artery occlusions

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CASE PRESENTED TO SECTION OF OPHTHALMOLOGY, 10 JUNE 1993

Keywords: symmetrical artery occlusions; preserved vision

We present a report of a 52-year-old hypertensive patient with documented bilateral symmetrical branch retinal artery occlusions involving the maculae. The patient presented with no visual symptoms and maintained 6/5 unaided visual acuity in each eye. Although the incidence of retinal artery occlusion in hypertensive patients is well documented, symmetrical bilateral branch retinal artery occlusions suggest a possible anatomical vascular predisposition.

#### **CASE REPORT**

A 52-year-old male smoker with a 6 month history of hypertension had no visual symptoms but did have transient 'shadowing' of vision during the previous year. His visual acuity was 6/5 unaided in each eye. Fundoscopy revealed a few cotton wool spots and intraretinal microvascular

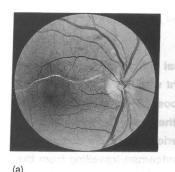
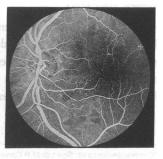




Figure 1 (a) Right fundus occluded vessel; (b) left fundus showing symmetrically occluded vessel





(a)

Figure 2 (a) Right and (b) left fundus fluorescein angiogram

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abnormalities together with bilateral symmetrical branch retinal artery occlusions involving the maculae (Figure 1). There were no obvious carotid bruits, cardiac murmurs or neurological deficits. There was no evidence of endarteritic vaso-obliteration either at a retinal or systemic level.

All serological investigations were within normal limits. Fundus fluorescein angiography shows symmetrical occluded vessels (Figure 2). Carotid doppler studies revealed minor isolated atheromatous plaques in the right external carotid artery and in the bulb of the left internal carotid artery only, other areas of both carotid vessels being clear. An echocardiogram revealed no abnormalities.

#### **DISCUSSION**

Branch retinal artery occlusion is most commonly caused by emboli. Carotid artery disease, hypertension and smoking are factors that predispose to embolic phenomena and were all present in this patient.

# Delayed diagnosis of cystic fibrosis due to normal sweat electrolytes

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CASE PRESENTED TO SECTION OF PAEDIATRICS, 22 FEBRUARY 1994

**Keywords:** cystic fibrosis; sweat test; immunoreactive trypsinogen; dinucleotide repeat sequence; DNA analysis

The sweat test, if properly performed, is a reliable tool to assist in the diagnosis of cystic fibrosis. In practice, most errors arise from false positive results<sup>1,2</sup>. This case serves as a reminder that false negatives may also occur.

Bilateral branch retinal artery occlusions have been reported<sup>1</sup>. Symmetrical branch retinal artery occlusions suggest a possible predisposition in this patient's retinal vascular pattern.

Occlusions within branch retinal arteries crossing the maculae would be expected to cause sudden loss of central vision but this patient was asymptomatic and maintained 6/5 vision unaided in each eye. He only admitted to non-specific, transient 'shadowing' of vision. This strongly implies that the occlusions occurred gradually, preserving central vision with opening of collateral vessels.

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Table 1 Sweat tests results

Date	Sweat amount (mg)	Chloride (mmol/l)	Sodium (mmol/l)	Potassium (mmol/l)
20.6.91	124	37	26	11
23.8.93	120	136	128	40
25.8.93	231	105	114	14

### **CASE HISTORY**

The parents of this patient are first cousins and originate from the Punjab area of Pakistan. Their first child presented with meconium ileus in the neonatal period, and a sweat test at 23 days' age confirmed the diagnosis of cystic fibrosis (CF). DNA analysis was performed but did not identify a recognized CF mutation. The second child, born at term, birthweight 2.98 kg, was screened for CF. The result of whole blood immunoreactive trypsinogen (IRT) taken on the second day of life was  $73 \,\mu g/l$  (normal range (NR)<45  $\mu$ g/l) suggesting CF, and a repeat test at 9 weeks of age was 88 µg/l. However, a sweat test performed at 4.5 months of age (Table 1) gave an unequivocally normal result and no other patient had a sweat test performed on the same day. The infant was thriving and asymptomatic. Accordingly the IRT results were regarded as false positives, and the child was regarded as normal.

Subsequently, it was noted that this child remained small: height, weight and head circumference were below

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